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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,579	12/28/2001	Guy L. Steele JR.	06502.0367	2901

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EXAMINER

NGO, CHUONG D

ART UNIT PAPER NUMBER

2193

DATE MAILED: 05/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/035,579

Applicant(s)

STEELE, GUY L.

Examiner

Chuong D. Ngo

Art Unit

2193

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2 pages.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-37 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lynch et al. (6,009,551).

As per claim 1,5,14,18,26 and 30, Lynch et al. discloses in figure 1a floating point system (36) for performing floating point calculations including square root (see col. 17, line 40). The system includes an inherent analyzer (inherent circuitry that performs steps 138-148 in fig. 6, also see col. 18, line 58 through col. 19, line 9), and a result circuitry (84, see col. 15, line 22-23). It is noted that Lynch et al. does not explicitly disclose the resulting status embedded with the resulting floating operand. However, since Lynch et al. disclose that each operand in the register stack (84) includes a value stored in a register field (78), and a tag stored in an associated tag field (89) (see the bridging paragraph of cols. 15 and 16), and a tag values is generated for each operation result (steps 144 of fig. 6), it would have been obvious to a person of ordinary skill in the art to store both the result with its tag in the register stack (84) in order to quickly determine its status in subsequence operations.

As per claim 2-4,15-17 and 27-29, the use of buffers of storing operand and intermediate results in a processing circuit is well known in the art.

As per claim 6, Lynch et al also discloses the square rot logic circuit organized according to the structure of a decision table (see col. 19, lines 6-8).

As per claim 7-13,19-29, and 31-37, Lynch et al. discloses in fig. 5 status of an operand.

Art Unit: 2193

2. Applicant's arguments filed on 02/02/2005 have been fully considered but they are not persuasive.

It is respectfully submitted that Lynch et al. clearly discloses in col. 15, lines 22-23 that the register stack (84) is also for storing results of floating point operations including square root. Lynch et al. further discloses in the bridging paragraph of cols. 15 and 16 that the register stack (84) having a register field (78) with an associated tag field (89) for storing value and tag for each operand stored therein. In addition, Lynch et al. discloses in figure 6 a tag generation (144) for each operation result (step 144 of fig. 6). Therefore, although Lynch et al. does not explicitly disclose a "resulting status embedded with the resulting floating operand", the teachings of an associated tag field for each operand in the register stack that stores operand results, and a tag generation for each result would make it obvious to a person of ordinary skill in the art to store the both the result with its associated tag generated by steps 144 in a register field (78) and its associated tag field (89) of the register stack (84), respectively, in order to quickly determine its status in subsequence operations.

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

Art Unit: 2193

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuong D. Ngo whose telephone number is (571) 272-3731. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Chuong D Ngo
Primary Examiner
Art Unit 2193

05/12/2005